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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,063	09/23/2003	Gregory C. Ladden	CE11643W	5118
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MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			EXAMINER ZHU, BO HUI ALVIN	
			ART UNIT 2419	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary

Application No.

10/670,063

Applicant(s)

LADDEN ET AL.

Examiner

BO HUI A. ZHU

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The response to a Non-Final Office action filed on October 15, 2008 has been received.

Claims 1 -- 24 are pending.

Claims 1 – 24 are rejected.

No claims have been amended.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 – 8, 16 and 20 – 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claim 1: claim 1 recites "broadcasting ... the data ... to each destination module ... via a data link associated with the destination module and an inbound time slot ..." The subject matter "the destination module" lacks proper antecedence basis. All of the dependent claims of claim 1 are rejected as well for the same reason.

5. Regarding claim 16: "a set up of a call" has been introduced once in the dependent claim of claim 16, thus it is not clear whether the two calls refer to the same call or otherwise.
6. Regarding claim 20: First, claim 20 recites "a source module that broadcasts data to each destination module of a plurality of destination modules". The claim does not recite any structural connection between the source module and the destination modules. It is thus not clear how a source module can broadcast data to a destination module. Claim 20 is therefore being incomplete for omitting essential elements, such omission amounting to a gap between the elements. Second, "data" in "applies a tag to data to produce tagged data" lacks proper antecedence basis. Third, "the controller uncoupled from the switching system" lacks proper antecedence basis. All of the dependent claims of claim 20 are rejected as well for the same reason.
7. Regarding claim 23: First, claim 23 recites "determining a source module that broadcasts to a plurality of destination modules". It is not clear what is being broadcasted. Second, "the data links" lacks proper antecedence basis. Third, "a controller" is introduced twice in the claim, therefore it is not clear if the two controllers refer to the same controller or otherwise. All of the dependent claims of claim 23 are rejected as well for the same reason.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 – 6 and 9 - 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acampora et al. (US 4,760,570) in view of Munter (US 5,475,679).

(1) with regard to claim 1:

Acampora et al. discloses a system and method, comprising: receiving by a source module ($10_1 - 10_N$ on Fig. 1) data to be transferred; broadcasting the data to each destination module via a data link associated with the destination module and an inbound time slot of a plurality of inbound time slots (data are broadcasted on channels $14_1 - 14_N$, via TIME SLOT); selecting by a controller ($15_1 - 15_N$) a destination module ($12_1 - 12_N$ on Fig. 1) to process the data, wherein the destination module is selected without employing the data link (selection is processed by Packet Filters $20_1 - 20_N$, Concentrator 21, and Shared Buffer 22 of the controller; data links $14_1 - 14_N$, do not select the destinations); informing by the controller the selected destination module of the inbound time slot of the plurality of inbound time slots (column 4, lines 47 – 50; the selected destination module receives data via only the time slots directed by its controller); receiving the data by the selected destination module via the inbound time slot and processing the data by the selected destination module (each output, $12_1 - 12_N$, only receives its own data).

Acampora et al. does not disclose the controller is uncoupled from the data link.

Munter teaches a controller uncoupled from a data link for controlling selection of destination output for data transmitted via the data link (e.g. see Fig. 5, Core controller 80; column 6, lines 3 - 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Acampora et al. to include the feature of the controller is uncoupled from the data link as shown in the system of Munter in order to reduce complexity of the bus interfaces.

(2) with regard to claims 2, 3, 11 and 12:

Acampora et al. further discloses that determining a source module that receives the data (each packet filter, $20_1 - 20_N$ on Fig. 2, determines a source module); and determining an inbound time slot in which the source module will broadcast the data based on time slot in which the source module receives the data (the time slot used to send input data through the broadcast channels, $14_1 - 14_N$, is determined by the time slot arrangement from the inputs $10_1 - 10_N$, because data simply get propagated down the broadcast channels).

(3) with regard to claim 4:

Acampora et al. further discloses that the source module and the inbound time slot are determined in response to a set of a call (because the switching system, 11 on Fig. 1, is trying to transmit data from one point to another, i.e. from inputs to outputs, a connection is being set up and any type of connection between two points can be reasonably viewed as a call).

(4) with regard to claims 5 and 13:

Acampora et al. further discloses that the plurality of source modules and the plurality of destination modules are implemented in a transcoder (the switching system shown on Fig. 1 can be considered as a transcoder because the signal at the outputs of the switching system are different than the signal at the inputs, therefore they have different format and the whole system can be viewed as a transcoder).

(5) with regard to claim 9:

Acampora et al. discloses a system and method, comprising: receiving by a source module of a plurality of source module ($10_1 - 10_N$ on Fig. 1) data to be transferred; broadcasting the data to each destination module via a data link associated with the destination module of a plurality of destination module and an inbound time slot of a plurality of inbound time slots ($14_1 - 14_N$ on Fig. 1; data being broadcasted in a time slot is inherent because time division multiplexing is used on the broadcast channels 14_N); a controller ($15_1 - 15_N$ on Fig. 1) coupled to each destination module in response to a set up of a call (because the switching system, 11 on Fig. 1, is trying to transmit data from one point to another, i.e. from inputs to outputs, a connection is being set up and a communication connection between two points can reasonably be viewed as a call), selects a destination module ($12_1 - 12_N$ on Fig. 1) to process the data and conveys to the selected destination module information concerning a data link and a time slot via which the call data will be broadcast (column 4, lines 47 – 50; the selected destination module receives data via only the time slots directed by its controller).

Acampora et al. does not disclose the controller uncoupled from the data link.

Munter teaches a controller uncoupled from a data link for controlling selection of destination output for data transmitted via the data link (e.g. see Fig. 5, Core controller 80; column 6, lines 3 - 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Acampora et al. to include the feature of the controller is uncoupled from the data link as shown in the system of Munter in order to reduce complexity of the bus interfaces.

(6) with regard to claim 10:

Acampora et al. further discloses that the selected destination module processes the data based on the time slot and data link information provided by the call controller (the bus interfaces, 15₁ – 15_N on Fig. 1, control the data processing for the destinations).

(7) with regard to claims 6 and 14:

Acampora et al. discloses all of the subject matter as discussed above, and further discloses that each source module comprises an interface board (each inputs, 10₁ – 10_N on Fig. 1, inherently must have an interface board interfacing with the switch 11). Acampora et al. does not teach each destination comprises a voice processing function and the data comprises voice data.

The Examiner takes Official Notice that the data with voice signal and using a voice signal coder to process the voice signal is well known in the art, for example, the Pulse-Code modulation (PCM) is used to process voice signal in a digital format and PCM coder is well known in the art. It would be desirable to have a voice processing

device to process voice signal because it would allow the system the ability to process audio signal, thus increase the functionality of the system. Therefore, it would have been obvious to one of ordinary skill in the art the time of the invention to incorporate voice processing in to the system of Acampora et al.

(8) with regard to claim 15:

Acampora et al. further discloses the call controller determines the data link and informs the destination module of the designated data link (the destination receives data via only the time slots informed by its controller)

(9) with regard to claim 16:

Acampora et al. further discloses the call controller determines the time slot (the destination receives data via only the time slots informed by its controller).

10. Claims 7, 8 and 17 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acampora et al. (US 4,760,570) in view of Munter (US 5,475,679) and further in view of Ando (US 4,392,222).

(1) with regard to claim 20:

Acampora et al. discloses a system, comprising: a source module ($10_1 - 10_N$ on Fig. 1); broadcasting the data to a plurality of destination module ($12_1 - 12_N$ on Fig. 1).

Acampora et al. does not discloses a selected destination module applies a tag to data to produce tagged data, conveys the tagged data in a time slot to the source

module; wherein the destination module is selected by a controller uncoupled from the switching system.

Ando teaches a selected destination module applies a tag to data to produce tagged data, conveys the tagged data in a time slot to the source module (column 4, lines 41 – 56).

It would have been obvious to one of ordinary skill in the art the time of the invention to modify the system of Aampora et al. to include the features of a selected destination module applies a tag to data to produce tagged data and conveys the tagged data in a time slot to the source module as shown in Ando in order to allow data to be efficiently transmitted to a specific recipient.

Munter teaches a controller uncoupled from a data link for controlling selection of destination output for data transmitted via the data link (e.g. see Fig. 5, Core controller 80; column 6, lines 3 - 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Acampora et al. to include the feature of the controller is uncoupled from the data link as shown in the system of Munter in order to reduce complexity of the bus interfaces.

(2) with regard to claims 7, 17, 18 and 21:

Acampora et al. discloses all of the subject matter as discussed above. However, Acampora et al. does not disclose allocating an outbound time slot for use in transferring outbound data from the selected destination module to the source module;

tagging the data to produce tagged data; embedding by the destination module the tagged data in the allocated outbound time slot; and transferring the tagged data to the source module in the allocated outbound time slot.

Ando teaches a system that uses packet switching technique to transmit data in a time slot related to the direction of the transmission and attaching address information to the data to identify the receiving terminal of the data being transmitted (column 4, lines 44 – 51).

It would have been desirable to use an encapsulation technique used in packet switching to transmit data to a specific destination because it would save system resource and make the system more efficient. Therefore, it would have been obvious to one of ordinary skill in the art the time of the invention to use the encapsulation technique as taught by Ando in the system of Acampora et al. in order to improve network efficiency.

(3) with regard to claims 8, 19 and 22:

Acampora et al. discloses all of the subject matter as discussed above. However, Acampora et al. does not disclose receiving the tagged data by the source module; determining by the source module and based on the tag, that the data in the allocated outbound time slot is to be forwarded; forwarding the data by the source module.

Ando teaches attaching address information to data in order to identify the terminal to receive the data (column 4, lines 44 – 51; a receiving terminal inherently

receives the packet based on the address attached to packet and further processes the data).

It would have been desirable to use an encapsulation technique used in packet switching to transmit data to a specific destination because it would save system resource and make the system more efficient. Therefore, it would have been obvious to one of ordinary skill in the art the time of the invention to use the encapsulation technique as taught by Ando in the system of Acampora et al. in order to improve network efficiency.

11. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (US 4,392,222) in view of Acampora et al. (US 4,760,570).

(1) with regard to claim 23:

Ando discloses a method comprising: determining a source module (individual trunk line #i, #j and #k, Fig. 1) that sends data to a plurality of destination modules (terminal #1 - #n, Fig. 1); selecting by a controller (5, Fig. 1) uncoupled from the data links, a destination module (the terminal that originates a call) from among the plurality of destination module; allocating by a controller an time slot for a conveyance of data from selected destination module to the source module (column 4, lines 44 - 51, i.e. acknowledgement signal); tagging the data to produce tagged data (attaching address to an acknowledgement signal); embedding by the selected destination module the tagged data and transferring the tagged data to the source module in the allocated outbound time slot (sending the packet signal via an time slot).

Ando does not disclose the source module broadcasts to the destination modules.

Acampora et al. teaches a source module broadcasts to a plurality of destination modules (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ando to include the feature of the source module broadcasting to the destination modules as shown in Acampora et al. so as to allow data to be sent from a trunk line to all of the terminals more efficiently.

(2) with regard to claim 24:

Ando further discloses receiving the tagged data by the source module; determining by the source module and based on the tag, that the data in the allocated outbound time slot is to be forwarded; forwarding the data by the source module (a receiving terminal inherently receives the packet based on the address attached to packet and further processes the data).

Response to Arguments

12. Applicant's arguments with respect to claims 1 - 24 have been considered but are moot in view of the new grounds of rejections.

13. Regarding the statement of Official Notice made by Examiner in the rejections of claims 6 and 14, since Applicant does not challenge the statement, the statement has been treated as applicant admitted prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BO HUI A. ZHU whose telephone number is (571)270-1086. The examiner can normally be reached on Mon-Thur 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BO HUI A ZHU
Examiner, Art Unit 2419
January 7, 2009

/Hassan Kizou/

Supervisory Patent Examiner, Art Unit 2419